

ISO 14001 ENVIRONMENTAL ASPECTS (4.3.1)

The key to a successful registration for conformance with ISO 14001 is to accurately determine the organization's Environmental Aspects and Impacts, arrive at which are the most significant and therefore require the most attention. Two definitions should be reviewed at this point.

"3.3 -- Environmental Aspect

Element of an organization's activities, products or services that can interact with the environment.

NOTE -- A significant environmental aspect is an environmental aspect that has or can have a significant environmental impact."

and

"3.4 -- Environmental Impact

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services."

There are three distinct requirements contained within this section of ISO 14001. First, the organization shall identify the environmental aspects of its activities, products and/or services. In other words the organization must understand how it interacts with the environment. Second, the organization shall identify the specific environmental aspects that can be controlled, and over which it can be expected to have influence. Third, arrive at a list of significant environmental aspects based upon the individual environmental impact of each environmental aspect. The importance of this third step cannot be underestimated. The final list of significant environmental aspects will provide the basis for the Environmental Policy statement, and the Environmental Objective(s) and Targets. In other words the list of significant environmental aspects drives the entire content and scope of the operational portion of the environmental management system.

Content Requirements of Environmental Aspects

- understand how it interacts with the environment
- control versus influence
- arrive at a list of significant environmental aspects based upon impacts
- develop a procedure to support the three step decision making process

Identify Environmental Aspects

All of the organization's activities, products and/or services must be included within the environmental aspects review framework. The organization must assemble a listing of potential environmental aspects. The listing might include the following:

1. releases of material to the air, water and/or soil;
2. disposal of waste;
3. energy and natural resource consumption;
4. noise levels;
5. transportation and/or storage of materials;
6. manufacturing processes;
7. etc.

The purpose of this activity is not to determine the importance of each aspect. The purpose is to create a complete listing of how the organization interacts with the environment. The organization must include the effect of non-routine situations in the listing such as emergency conditions, start-up and shutdown activities. The procedure that is developed to produce the list of environmental aspects must recognize the concept of continual improvement. The procedure and the list of aspects can be influenced by future actions such as new legislation, changes in operations, etc. The Management Review (4.6) section mandates continual improvement because the environmental management system must be reviewed on a periodic basis to insure that it is still effective based upon the organization's activities, products and/or services.

Aspects...Controlled...Influence

The organization shall identify the specific environmental aspects that can be controlled, and over which it can be expected to have influence. This requirement leads to confusion in its interpretation. The simple approach here is to include only those aspects over which the organization has total control. The total control approach might be limiting when the question of conformance to ISO 14001 is evaluated. An organization that produces a product that is utilized by another organization might take the position that it cannot control the final disposal of that product. However, the producing organization might be evaluated for conformance with ISO 14001 based upon whether it had employed life cycle analysis in the design and production of the product. This is a "**grey**" area in the standard. The organization must develop a procedure for the determination of control and influence. The procedure must define whether an organization is going to be proactive, or approach this step in a narrow fashion.

Significant Environmental Aspects

The process of arriving at a list of Significant Environmental Aspects must be a reasonable and understandable procedure. The procedure could be based upon the following criteria:

1. perceived risk(human health vs. ecosystem);
2. impact analysis (internal, local, regional, global);
3. probability of occurrence;

4. direct or indirect control;
5. regulated or non-regulated;
6. resource utilization;
7. community interest;
8. etc.

Utilizing the above information an overall risk-based matrix can be developed that evaluates and ranks all of the aspects. The information utilized in the risk-based matrix should be quantifiable rather than qualitative. The significance procedure developed by the organization will be thoroughly reviewed for conformance under ISO 14001.

Questions That Need To Be Answered

The following questions will need to be answered in order to determine whether the Environmental Aspects section meets the intent of ISO 14001:

1. Has the organization developed a procedure(s) to identify the environmental aspects of its activities, products and/or services that it can control and over which it can be expected to have an influence?
2. Does the procedure include the evaluation of non routine conditions?
3. Does the organization utilize and improve this procedure(s)?
4. Has the organization utilized the procedure(s) to determine which of its environmental aspects have, or can have, significant impacts on the environment?
5. Is the information relative to the environmental aspects kept up to date?